

REMARKS

Pending Claims

Claims 1-29 have been canceled. New claims 30-32 have been added.
Accordingly, claims 30-32 are currently pending in this application. A Request for Continued Examination and the required fee accompany this paper.

Request for Suspension of Action under 37 CFR § 1.103(c)

A Request for Suspension of Action under 37 CFR § 1.103(c) for a period of 3 months and the required fee accompany this paper. Applicants will file a Supplemental Response within the suspension period.

35 U.S.C. §103(a)

Claims 15-28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over DeKoning, US Pat. No. 6,671,776 (hereafter "DeKoning"), in view of Applicant Admitted Prior Art, US Pat. Appl. Pub. No. US2002/0143903 (hereafter "AAPA"), and further in view of Kedem, US Pat. No. 6,725,331 (hereafter "Kedem") and Blumenau et al, US Pat. Appl. Pub. No. US2001/0020254 (hereafter "Blumenau"). These claims have been canceled and the rejections are now moot. In addition, new claim 30 is allowable for the following reasons.

Under Applicants' invention, a host computer is able to use a command device to instruct coupling operations to logical units that are accessible by that host

computer, but is not able to instruct coupling operations to any of the other logical units in a storage system. This was not possible in the prior art, and LUN security interferes with the ability of the host to instruct coupling to some or all of its accessible logical units in certain situations, such as where it is necessary to switch access paths because of path failure (see, e.g., page 10, lines 2-25 of Applicants' specification).

Claim 30 includes that

the storage system adds extended logical unit information used in the coupling operations to a response sent by the storage system to the host as a reply to inquiry commands from said host to specified logical units of said plurality of logical units, said extended logical unit information including a connection port, a target ID, and a logical unit number, wherein, from said inquiry commands, the application obtains a list of the extended logical unit information identifying accessible logical units of said plurality of logical units accessible by the host out of said plurality of logical units.

The Office Action asserts on Page 5, lines 3-8, that Blumenuau teaches the addition of logical units/volumes as a response to a user seeking to extend their logical volume access and storage, and that DeKoning teaches provision for LUN assignment and topology data, which associates LUNs with respective hosts. However, Applicants respectfully submit that neither of these references teach or suggest the above-recited limitation. For example, paragraph 147 of Blumenuau merely teaches that a user is able to select a storage volume for assignment to a host, and does not teach or suggest a storage system that returns Applicants' recited extended logical unit information in response to an inquiry from a host. Similarly,

DeKoning also does not teach or suggest a storage system that returns extended logical unit information, as defined in Applicants' claims, and does not do so in response to an inquiry command received from the host (see, e.g., col. 6, lines 30-63 and FIG. 4). Further, there is no port information included with the LUN information returned by the storage system of DeKoning to the hosts, and accordingly, the storage system of DeKoning does not return extended logical unit information that includes a connection port, as recited in Applicants' claims. Accordingly, Applicants respectfully submit that this aspect of claim 30 is allowable over the combination of DeKoning, AAPA, Kedem and Blumenau, whether taken singly, or in combination.

Additionally, claim 30 includes that

wherein, when access through said first host adapter or said first port fails, said host computer is still able to instruct coupling operations to said first logical units via said second host adapter by said application referring to said list to determine whether said first logical units are identified as accessible logical units on said list and by accessing said second discrete command device via said second host adapter to instruct coupling operations to said first logical units when said first logical units are identified as accessible logical unit.

None of the art of record teaches or suggests a host computer that is able to access a second discrete command device upon failure of a first port or first adapter due to an application referring to a list of accessible logical units to determine whether the logical units that are the object of the coupling instructions are accessible logical units that the host is able to access. Accordingly, claim 30 is allowable for this aspect as well.

The remaining claims depend from these claim 30, are directed to additional patentable aspects of the invention, and are allowable at least because they depend from an allowable base claim.

Conclusion

Should the Examiner feel that a telephonic or in-person interview would be useful to advance prosecution of the application, the Examiner is encouraged to contact Applicants' undersigned representative.

In view of the foregoing amendments and remarks, Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,


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